

WHAT IS CLAIMED IS

1. A chassis measuring apparatus for a vehicle, including
a vehicle lift platform for reversibly lifting a vehicle to be measured,
an axle measuring unit for measuring parameters of an axle of the
vehicle,

an axle measurement lifting device for reversibly lifting the axle
measuring unit, the axle measurement lifting device comprising at least first
and second lifting stages, and

means for actuating the lifting stages reversibly independently of
each other.

2. A chassis measuring apparatus as set forth in claim 1
wherein the axle measurement lifting device is arranged on the first
lifting stage.

3. A chassis measuring apparatus as set forth in claim 1 including
a lifting drive for the vehicle lift platform,
a lifting drive of the second lifting stage of the axle measurement
lifting device, and
means for actuating the lifting devices displaceably synchronously.

4. A chassis measuring apparatus as set forth in claim 3 including
a lifting drive for the first lifting stage of the axle measurement lifting
device, and
means for reversibly actuating the lifting drive for the first lifting
drive independently of the drives of the second lifting stage and the vehicle
lift platform.

5. A chassis measuring apparatus as set forth in claim 3
wherein the drives of the vehicle lift platform and at least the second
lifting stage of the axle measurement lifting device each comprise at least
12

one respective piston-cylinder unit.

6. A chassis measuring apparatus as set forth in claim 5 including means connecting the piston-cylinder unit of the vehicle lift platform in series with the piston-cylinder unit of the second lifting stage of the axle measurement lifting device for synchronous lifting to the same heightwise level.

7. A chassis measuring apparatus as set forth in claim 4 wherein the drive of the first lifting stage of the axle measurement lifting device comprises at least one piston-cylinder unit.

8. A chassis measuring apparatus as set forth in claim 1 wherein at least one of the vehicle lift platform and the first lifting stage and the second lifting stage of the axle measurement lifting device is in the form of a scissors platform.

9. A chassis measuring apparatus as set forth in claim 1 including a common foundation for supporting the vehicle lift platform and the axle measurement lifting device, the foundation having at least one recess for the axle measurement lifting device into which the axle measurement lifting device is lowerable in an inoperative condition thereof so that it aligns at least with the upper level of a trackway of the vehicle lift platform in its lowered condition.

10. A chassis measuring apparatus as set forth in claim 9 wherein the top of the axle measurement lifting device is provided with a plate adapted to at least approximately close off the recess in the foundation.

11. A method of chassis measurement of a vehicle with a chassis measuring apparatus which comprises a vehicle lift platform with which a

vehicle to be measured can be reversibly lifted and an axle measurement lifting device with which an axle measuring device can be reversibly lifted,

wherein after the vehicle to be measured has been driven on to the vehicle lift platform and after at least vertical alignment of an axle measuring unit of the axle measuring lifting device the measuring operation is carried out,

wherein when a necessary chassis adjustment is detected the vehicle is lifted by means of the vehicle lift platform, and

wherein the axle measurement lifting device is displaced vertically by means of a first lifting stage for vertical adjustment of the axle measuring unit and when the vehicle lift platform is raised the axle measuring unit follows the movement of the vehicle lift platform by means of a second lifting stage.

12. A method as set forth in claim 11

wherein the second lifting stage of the axle measurement lifting device is raised synchronously with the vehicle lift platform.

13. A method as set forth in claim 11

wherein the drive of the first and the second lifting stages of the axle measurement lifting device and the drive of the vehicle lift platform are supplied from the same energy source.

14. A method as set forth in claim 11

wherein the axle measurement lifting device can be lowered in an inoperative condition thereof into a recess in the foundation of the chassis measuring apparatus in such a way that the upper end of the axle measurement lifting device is at least substantially aligned with the support surface for the vehicle to be measured when the vehicle lift platform is lowered.